## ABSTRACT

A method of collecting volatile constituents, capable of surely collecting volatile constituents contained in a solid such as leaf tobacco. In particular, a sample vessel 10 for containing a sample of a solid containing volatile constituents, a gas feeding device 16 for filling the sample vessel with inert gas, a thermostatic chamber 12 for containing the sample vessel and keeping the sample contained in the sample vessel at a predetermined temperature, and a canister 20 designed to be depressurized in advance and selectively connected to the sample vessel are provided. The sample vessel containing the sample S is filled with inert gas, and the sample S is kept at a predetermined temperature. Thereafter, the canister depressurized in advance is connected to the sample vessel, and constituents evaporating and escaping from the sample are collected.